

Work Order ID 150431

Wednesday, August 24, 2016 11:55:59 AM

150431

Page 1

Item ID: D5152-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Fwd Post Mount Assembly
Start Date: 9/2/2016 Start Qty: 8.00 ***g*** Cust Item ID:
Required Date: 9/12/2016 Req'd Qty: 8.00 ***g*** Customer:
Reference:

Approvals: Process Plan: **DAS 21 9-89** Date: **AUG 29 2016** Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D5152	B

110 Weld per dwg A/R S.S. rod Batch: **M13442** 0.00***110***

Large Fab Memo 0.96

Large Fab

8 B 16-9-13

120 QC9- Inspect visual per QSI004- Fusion Welds 0.00

120

QC Memo 0.00

Quality Control

(8) 16-9-14 **DAS 9 9-89**

130 QC5- Inspect part completeness to step on W/O 0.00

130

QC Memo 0.03

Quality Control

(8) 16-9-14 **DAS 9 9-89**

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval 2AG TS 02-6	
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
OTHER : ☐									

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Description Work Order Deviation				Disposition					

Root Cause				FAULT CATEGORY			
Environment ☐	Design ☐	Doc/Data ☐	Equip/Tooling ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Handling/Pre ☐	Material ☐	Internal Transport ☐	Tribal Knowledge ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
LOA ☐	Substation ☐	Past Expiry Date ☐	Misidentified ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
				Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
				Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
				Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
				Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
				Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
				Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
				Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐				OTHER : _____			

Work Order ID 150431

Wednesday, August 24, 2016 11:55:59 AM

150431

Page 3

Item ID: D5152-041 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Fwd Post Mount Assembly
Start Date: 9/2/2016 Start Qty: 8.00 ***8*** Cust Item ID:
Required Date: 9/12/2016 Req'd Qty: 8.00 ***8*** Customer:
Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
170	QC21- Final Inspection - Work Order Release	0.00							
170									
QC	Memo	0.13							
Quality Control									

DAS
21
9-89
SEP 19 2016

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐							
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval			
Description Work Order Deviation				Disposition							
Root Cause Environment ☐ No Re-verification ☐ Design ☐ Operator ☐ Doc/Data ☐ Offset/Setup ☐ Equip/Tooling ☐ Supplier ☐ Handling/Pre ☐ Training ☐ Material ☐ Use for Testing ☐ Internal Transport ☐ Poor Information ☐ Tribal Knowledge ☐ Rushing ☐ LOA ☐ Product Improvement ☐ Substation ☐ Process Improvement ☐ Past Expiry Date ☐ Manufacturing Process ☐ Misidentified ☐ Past Due ☐		Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐		FAULT CATEGORY Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐		Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐		Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____											

Picklist Print

Wednesday, August 24, 2016 11:55:58 AM

Page 1

Work Order ID: 150431

150431

Parent Item: D5152-041

D5152-041

Parent Item Name: Fwd Post Mount Assembly

Start Date: 9/2/2016

Required Date: 9/12/2016

Start Qty: 8.00

Required Qty: 8.00

Comments: IPP REV:A 15.01.09 NEW ISSUE DD VERF:JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D5152-1

Manufactured

No

Each

27.0000

8

D5152-1

EL 16-9-12

Fwd Post Mount

Location

Loc Qty

Loc Code

WA002

27

142660

11

147867

6

148608

10

D5152-5

Manufactured

No

Each

26.0000

8

D5152-5

EL 16-9-12

Fwd Step Post

Location

Loc Qty

Loc Code

WA002

26

137104

7

143398

4

147880

15

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE

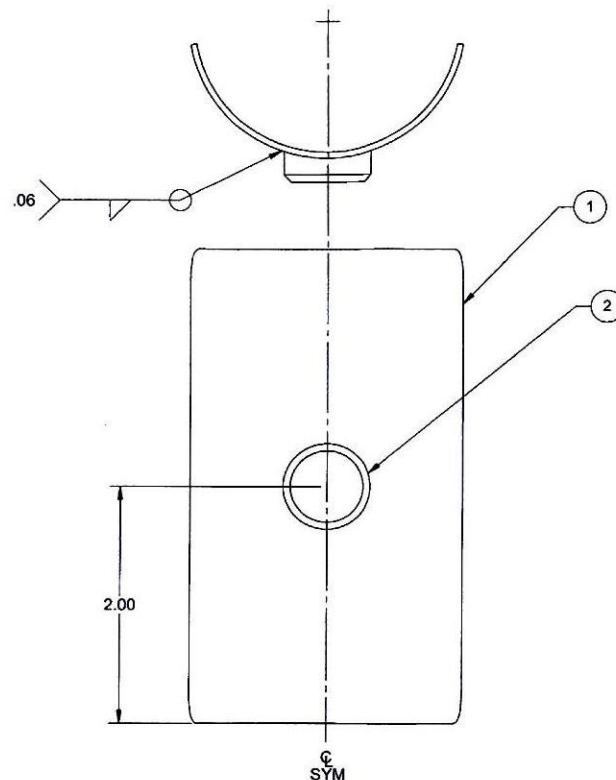


QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

ITEM	QTY -041	P/N	DESCRIPTION
	X	D5152-041	FWD POST MOUNT ASSY
1	1	D5152-1	FWD POST MOUNT
2	1	D5152-5	FWD STEP POST



D5152-041 FWD POST MOUNT ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: PRIME PER DART QSI 005 4.2
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER DART QSI 044 6.1
- 7) WEIGHT: D5152-041= 0.21 lbs

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 150431 MJS
1608-29

RELEASED

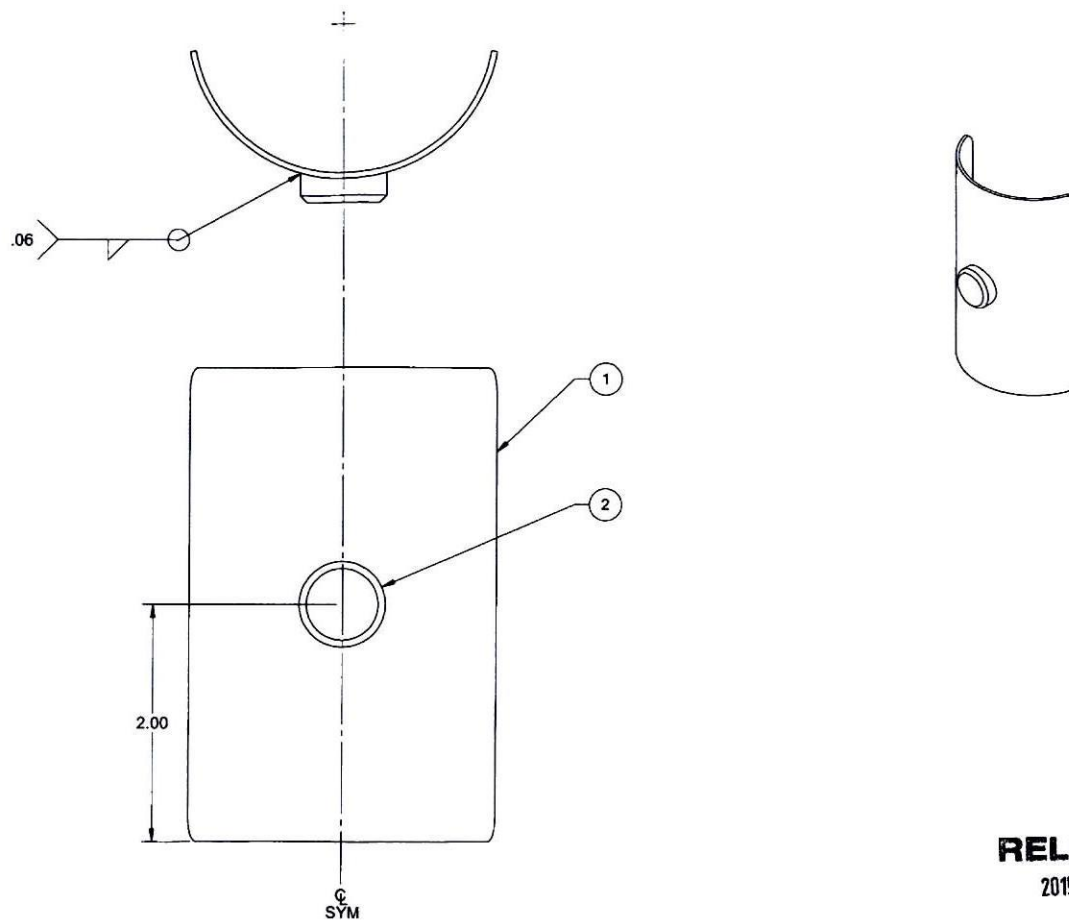
2015 FEB 09

ECN 15-516 4P

B	COMPLETE REDESIGN, SEE PREVIOUS REV FOR DETAILS	DB	15.01.09
A	NEW ISSUE	DB	14.09.03
REV.	DESCRIPTION	BY	DATE
DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA DRAWING NO. D5152 REV. B SHEET 1 OF 5 TITLE POST MOUNT SCALE NTS COPYRIGHT © 2014 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	
DRAWN	EPDMA		
CHECKED	DB		
MFG. APPR.	DD		
APPROVED	HS		
DE APPR.	DS		
DATE	15.01.09		

APPROVED

ITEM	QTY -043	P/N	DESCRIPTION
	X	D5152-043	AFT POST MOUNT ASSY
1	1	D5152-3	AFT POST MOUNT
2	1	D5152-7	AFT STEP POST



D5152-043 AFT POST MOUNT ASSEMBLY

NOTES:

- 1) MATERIAL: N/A
- 2) FINISH: PRIME PER DART QSI 005 4.2
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: IDENTIFY PER DART QSI 044 6.1
- 7) WEIGHT: D5152-043= 0.23 lbs

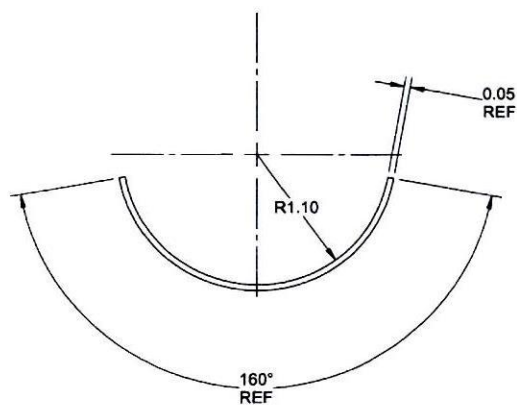
RELEASED

2015 FEB 09

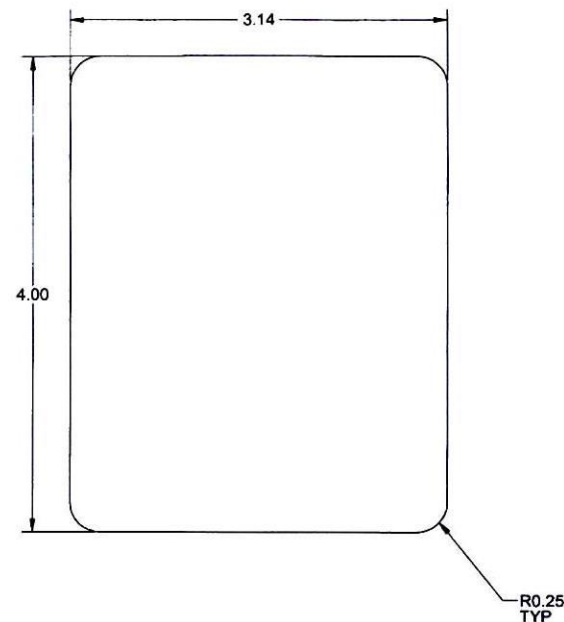
APPROVED

DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	EPDMA		
CHECKED	DB	DRAWING NO.	REV. B
MFG. APPR.	DD	D5152	SHEET 2 OF 5
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	POST MOUNT	NTS
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8 7 6 5 4 3 2 1



D5152-1 FWD POST MOUNT
(MAKE FROM D5152-1F)



D5152-1F FWD POST MOUNT
(FLAT PATTERN)

RELEASED

2015 FEB 09

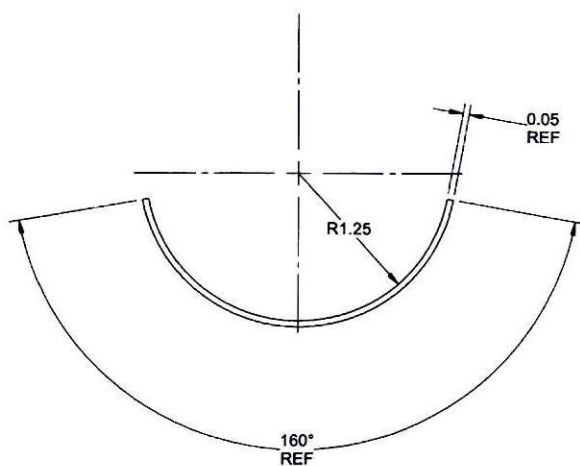
NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET PER MIL-S-5059 OR AMS 5513 OR 5524 OR ASTM A240 OR ASME SA240, 0.050" THICK (PER DART SPEC M304S18GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A

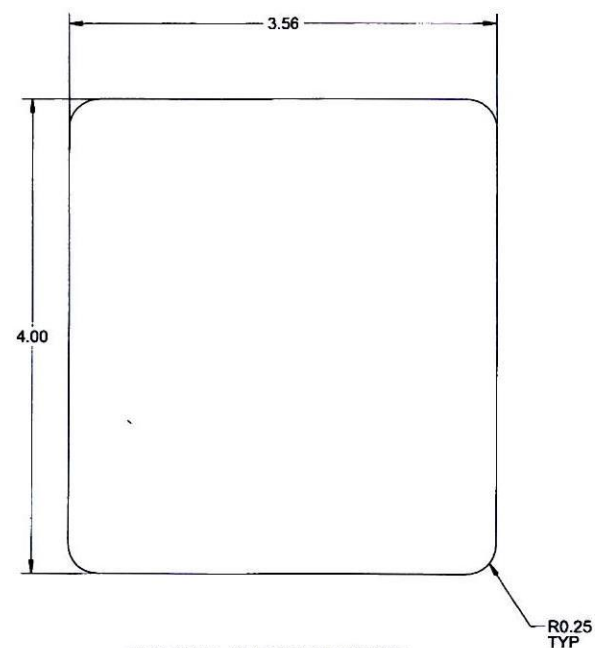
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DRAWN	EPDMA		
CHECKED	DB	DRAWING NO.	REV. B
MFG. APPR.	DD	D5152	SHEET 3 OF 5
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	POST MOUNT	NTS
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8 7 6 5 4 3 2 1



D5152-3 AFT POST MOUNT
(MAKE FROM D5152-3F)



D5152-3F AFT POST MOUNT
(FLAT PATTERN)

RELEASED

2015 FEB 09

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL SHEET PER MIL-S-5059 OR AMS 5513 OR 5524 OR ASTM A240 OR ASME SA240, 0.050" THICK (PER DART SPEC M304S18GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: N/A

APPROVED

DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	EPDMA		
CHECKED	DB	DRAWING NO.	REV. B
MFG. APPR.	DD	D5152	SHEET 4 OF 5
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	POST MOUNT	NTS
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8 7 6 5 4 3 2 1

D

D

C

C

B

B

A

A

R1.150

R1.300

0.20

0.20

0.06 X 45° CMF

0.06 X 45° CMF

Ø0.725

Ø0.725

D5152-5 FWD STEP POST

D5152-7 AFT STEP POST

RELEASED

2015 FEB 09

9

NOTES:

- 1) MATERIAL: AISI 304/316 SS ROUND BAR PER ASTM A276, REF DART SPEC M304R0.750
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.02 lbs

APPROVED

DESIGN	DB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	EPDMA		
CHECKED	DB	DRAWING NO.	REV. B
MFG. APPR.	DD	D5152	SHEET 5 OF 5
APPROVED	HS	TITLE	SCALE
DE APPR.	DS	POST MOUNT	NTS
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8 7 6 5 4 3 2 1